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NEWS 3 AUG 18 COMPENDEX indexing changed for the Corporate Source
(CS) field
NEWS 4 AUG 24 ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced
NEWS 5 AUG 24 CA/CAPLUS enhanced with legal status information for
U.S. patents
NEWS 6 SEP 09 50 Millionth Unique Chemical Substance Recorded in
CAS REGISTRY
NEWS 7 SEP 11 WPIDS, WPINDEX, and WPIX now include Japanese FTERM
thesaurus
NEWS 8 OCT 21 Derwent World Patents Index Coverage of Indian and
Taiwanese Content Expanded
NEWS 9 OCT 21 Derwent World Patents Index enhanced with human
translated claims for Chinese Applications and
Utility Models
NEWS 10 NOV 23 Addition of SCAN format to selected STN databases
NEWS 11 NOV 23 Annual Reload of IFI Databases
NEWS 12 DEC 01 FRFULL Content and Search Enhancements
NEWS 13 DEC 01 DGENE, USGENE, and PCTGEN: new percent identity
feature for sorting BLAST answer sets
NEWS 14 DEC 02 Derwent World Patent Index: Japanese FI-TERM
thesaurus added
NEWS 15 DEC 02 PCTGEN enhanced with patent family and legal status
display data from INPADOCDB
NEWS 16 DEC 02 USGENE: Enhanced coverage of bibliographic and
sequence information

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.22	0.22

FILE 'CAPLUS' ENTERED AT 18:21:04 ON 06 DEC 2009
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FILE COVERS 1907 - 6 Dec 2009 VOL 151 ISS 24
FILE LAST UPDATED: 4 Dec 2009 (20091204/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2009

CAPLUS now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s ("shell-and-tube" or "shell and tube")
186968 "SHELL"
43598 "SHELLS"
210459 "SHELL"
      ("SHELL" OR "SHELLS")
0 "AND"
309 "ANDS"
309 "AND"
      ("AND" OR "ANDS")
386044 "TUBE"
229621 "TUBES"
525749 "TUBE"
      ("TUBE" OR "TUBES")
0 "SHELL-AND-TUBE"
      ("SHELL" (W) "AND" (W) "TUBE")
186968 "SHELL"
43598 "SHELLS"
210459 "SHELL"
      ("SHELL" OR "SHELLS")
0 "AND"
309 "ANDS"
309 "AND"
      ("AND" OR "ANDS")
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386044 "TUBE"
229621 "TUBES"
525749 "TUBE"
      ("TUBE" OR "TUBES")
0 "SHELL AND TUBE"
      ("SHELL" (W) "AND" (W) "TUBE")
L1      0 ("SHELL-AND-TUBE" OR "SHELL AND TUBE")

=> s "reactor tube"
475533 "REACTOR"
275296 "REACTORS"
534276 "REACTOR"
      ("REACTOR" OR "REACTORS")
386044 "TUBE"
229621 "TUBES"
525749 "TUBE"
      ("TUBE" OR "TUBES")
L2      1862 "REACTOR TUBE"
          ("REACTOR" (W) "TUBE")

=> s l2 and (tube near ("non-circular" or noncircular))
MISSING OPERATOR 'NEAR' ("NON-CIRCU"
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l2 and ("non-circular" or noncircular)
1106910 "NON"
38 "NONS"
1106939 "NON"
      ("NON" OR "NONS")
120095 "CIRCULAR"
78 "CIRCULARS"
120162 "CIRCULAR"
      ("CIRCULAR" OR "CIRCULARS")
1029 "NON-CIRCULAR"
      ("NON" (W) "CIRCULAR")
1724 NONCIRCULAR
L3      0 L2 AND ("NON-CIRCULAR" OR NONCIRCULAR)

=> s l2 and (oval or ellipse or ellipical)
6557 OVAL
141 OVALS
6663 OVAL
      (OVAL OR OVALS)
3122 ELLIPSE
793 ELLIPSES
3754 ELLIPSE
      (ELLIPSE OR ELLIPSES)
0 ELLIPICAL
L4      0 L2 AND (OVAL OR ELLIPSE OR ELLIPICAL)

=> s l2 and (helix or helical or helically)
79833 HELIX
20763 HELIXES
4114 HELICES
91086 HELIX
      (HELIX OR HELIXES OR HELICES)
72186 HELICAL
5 HELICALS
72187 HELICAL
      (HELICAL OR HELICALS)
3206 HELICALLY

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L5 7 L2 AND (HELIX OR HELICAL OR HELICALLY)

=> d 15 1-7 abs ibib

L5 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

AB Particulate filling devices use a loading system generally including a loading cart, a drive system, and a line assembly. The drive system generally includes a motor, a drive shaft, a driven shaft, a spool, a plurality of cable partitions, and a controller. Each line assembly generally includes cable sections, swivel connectors, one or more spring blocks and a weight. The spring blocks comprise a multiplicity of individual spring members, each of which has the configuration of a helix and which together make a non-continuous surface. The device provides uniform loading of catalyst particles into reactor tubes while reducing breakage and fracturing of the particles.

ACCESSION NUMBER: 2008:1487212 CAPLUS
DOCUMENT NUMBER: 150:37368
TITLE: Catalyst loading system
INVENTOR(S): Fry, Paul
PATENT ASSIGNEE(S): Catalyst Services, Inc., USA
SOURCE: PCT Int. Appl., 22pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008151139	A1	20081211	WO 2008-US65546	20080602
W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: US 2007-756961 A 20070601
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

AB The title generator contains a multilayer helix reactor tube, a flashboard, and a baffle. Reacting liquid is plugged to lower tube and uniformly mix and be heated while flowing. The reaction has long time, high completeness, and high conversion rate of chlorine dioxide. The corridor with varying diameter is applied for fast and safe exhaust of chlorine dioxide and sufficient reaction time. The production cost of chlorine dioxide is reduced.

ACCESSION NUMBER: 2008:241938 CAPLUS
DOCUMENT NUMBER: 148:334396
TITLE: N-stage plugflow chlorine dioxide generator with diameter-varying corridor
INVENTOR(S): Zhou, Chuanrong; He, Ronghua
PATENT ASSIGNEE(S): Sichuan Baosheng Industry Development Co., Ltd., Peop. Rep. China
SOURCE: Shiyong Xinxing Zhuanli Shuomingshu, 8pp.

DOCUMENT TYPE: CODEN: CNXXAR
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1 Chinese
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 201024088	Y	20080220	CN 2007-20078912	20070329
PRIORITY APPLN. INFO.:			CN 2007-20078912	20070329

L5 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 AB Methods and apparatus prevent breakage of a catalyst particle and evenly fill the catalyst into tubes to an optimum d. A loading tool comprises a plurality of damper members extending from a centerline of the tube in at least one radial direction but in every case, having a diameter smaller than the inner diameter of the tube. For example, in one embodiment the damper members are shaped in a Z-like formation with each having a different rotational orientation than the adjacent one above or below it. The Z formations can be horizontally arranged along a central member or can be formed vertically in a unitary fashion from a single, stiffened member. In another embodiment, the dampers are formed into spiral or helical shapes that increase or decrease in diameter along the length of the tube.

ACCESSION NUMBER: 2007:1064302 CAPLUS
 DOCUMENT NUMBER: 147:388108
 TITLE: Method and apparatus for loading catalyst
 INVENTOR(S): Brennom, Stephen
 PATENT ASSIGNEE(S): Cat Tech, Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 8pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070215236	A1	20070920	US 2006-377798	20060316
WO 2007109442	A2	20070927	WO 2007-US63718	20070309
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM JP 2009530085 T 20090827 JP 2009-500566 20070309 PRIORITY APPLN. INFO.: US 2006-377798 A 20060316 WO 2007-US63718 W 20070309				

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

L5 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 AB Five occurrences of carbonaceous deposits formed in continuous coal or coal tar hydrogenation reactors were examined by optical microscopy in order to determine the causes of deposit formation. Three of the deposits were formed in helically coiled reactor tubes and

the other 2 in an open tubular reactor operated in a cocurrent upflow mode. The mode of deposition depends to a large extent on the nature of the vehicle oil used. In the 2 cases during which tar and recycle oil were used, deposition was gradual. The nature of the deposits indicated that agitation within the reactor was insufficient to prevent settling of mineral matter, catalyst particles, and mesophase. Excessively high reaction temperature was the major cause of reactor blockage for the 3 cases in which Tetralin [119-64-2] was used as vehicle oil.

ACCESSION NUMBER: 1984:212763 CAPLUS
DOCUMENT NUMBER: 100:212763
ORIGINAL REFERENCE NO.: 100:32297a, 32300a
TITLE: Microscopic investigation of carbonaceous material forming blockages in coal hydrogenation reactors
AUTHOR(S): Shibaoka, Michio; Foster, Neil R.; Okada, Kiyofumi; Russell, Nigel J.; Clark, Keith N.
CORPORATE SOURCE: Div. Fossil Fuels, CSIRO, North Ryde, 2113, Australia
SOURCE: Fuel Processing Technology (1984), 8(3), 267-81
CODEN: FPTEDY; ISSN: 0378-3820
DOCUMENT TYPE: Journal
LANGUAGE: English
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L5 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

AB A continuous mixing reactor tube for polymerization, consisting of adjacent sections of helical strips mounted on a stirrer shaft, is disclosed. The adjacent helices are arranged to provide alternating opposing areas of circulation and the helix shaft may be mounted concentrically or eccentrically within the tube. Rapid and intimate mixing with good control is provided by the apparatus

ACCESSION NUMBER: 1978:564202 CAPLUS
DOCUMENT NUMBER: 89:164202
ORIGINAL REFERENCE NO.: 89:25463a, 25466a
TITLE: Mixing and polymerizing reactor
INVENTOR(S): Fries, Ludwig; Judat, Helmut; Rudolph, Karl Heinz
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2705556	A1	19780817	DE 1977-2705556	19770210
DE 2705556	B2	19791122		
DE 2705556	C3	19800731		
NL 7801451	A	19780814	NL 1978-1451	19780208
JP 53099246	A	19780830	JP 1978-12546	19780208
BR 7800777	A	19781128	BR 1978-777	19780209
BE 863829	A1	19780810	BE 1978-56677	19780210
JP 53099290	A	19780830	JP 1978-13676	19780210
FR 2380067	A1	19780908	FR 1978-3873	19780210
PRIORITY APPLN. INFO.:			DE 1977-2705556	A 19770210
OS.CITING REF COUNT:	1	THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)		

L5 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

AB The preparation of 2-chloroacrylonitrile (I) by pyrolysis of 2-chloro-1-cyanoethyl acetate (II) at 550-650° for 0.5-10 sec. at atmospheric pressure is described. E.g., II was passed at such a rate as to give

a contact time of .apprx.3 sec. through a vertical 1-in. diameter high-silica glass tube with a 1-ft. section packed with 1/8-in. glass helices maintained at 590° by an external elec. resistance furnace. In the same manner, a short section of the reactor tube immediately above the reactor zone was maintained at an elevated temperature somewhat lower than that of the reaction zone to preheat and vaporize the acetate feed as it was metered into the top of the tube. The gaseous effluent from the bottom of the reactor tube passed through a condenser and was collected in a trap cooled by solid CO2 to give 1 47.0 and 3-chloroacrylonitrile 40.7%. Similar treatment of the 2-chloro-1-cyanoethyl ester of propionic, butyric, or valeric acids gave comparable yields of 1.

ACCESSION NUMBER: 1965:497803 CAPLUS
DOCUMENT NUMBER: 63:97803
ORIGINAL REFERENCE NO.: 63:17914g-h,17915a
TITLE: Chloroacrylonitriles
INVENTOR(S): Nowak, Robert M.
PATENT ASSIGNEE(S): Dow Chemical Co.
SOURCE: 2 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3211779		19651012	US	19611218
PRIORITY APPLN. INFO.:			US	19611218

L5 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
AB The retainer, allowing free flow of the reaction fluids in the reactor, consists of catalytic reactor tube and a compressible helical spring to retain itself and the catalyst within the tube.

ACCESSION NUMBER: 1962:422707 CAPLUS
DOCUMENT NUMBER: 57:22707
ORIGINAL REFERENCE NO.: 57:4513h
TITLE: Catalyst retainer
INVENTOR(S): Peterson, Oscar A.
PATENT ASSIGNEE(S): Scientific Design Co. Inc.
SOURCE: 2 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3034869		19620515	US 1958-738825	19580529
GB 921906			GB	

=> FIL STNGUIDE
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
77.58	77.80

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-5.74	-5.74

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